

CLAIMS

We claim:

1. A method of controlling the access times to an optical disc with a private flag area and a main data area that stores scrambled original data, the method comprising the steps
5 of:
 - reading the private flag area to obtain an address signal;
 - determining a medium key source according to the address signal;
 - reading a life flag area to obtain an access optical power signal;
 - using the access optical power signal to determine an access optical power for
10 accessing the medium key block (MKB);
 - using the access optical power to access the MKB and obtaining a medium key signal; and
 - using the medium key signal to restore the main data on the disc to the original data.
- 15 2. The method of claim 1, wherein the step of accessing the MKB reads the medium key signal from the optical disc.
3. The method of claim 1, wherein the step of accessing the MKB reads the medium key signal from some external connected device.
4. The method of claim 1, wherein the MKB contains a plurality of data areas that
20 records a common string.
5. The method of claim 1, wherein the step of determining a medium key signal is performed according to the steps of:

- reading the string in each data area of the MKB;
- classifying those with the same string to a group;
- computing the appearance frequencies of different strings in the different groups; and
- 5 using the data area string with the highest appearance string as the medium key signal.
6. The method of claim 1, wherein the access optical power for reading the MKB is greater than the access optical power of other areas.
7. The method of claim 1, wherein the step of restoring the main data into the
10 original data includes the steps of:
- combining the medium key signal with a device key of the optical disc drive to generate a title descramble key using a first descrambler;
- combining the title descramble key with a title key data read from a title key area of the optical disc to generate a main data descramble key using a second
15 descrambler; and
- combining the main data descramble key with the main data read from a main data area of the optical disc to obtain the original data using a third descrambler.
8. An optical disc with a controllable access comprising:
- 20 a medium key block (MKB), which is formed on the optical disc using a readable/writeable material for providing a medium key signal;
- a flag area, which is formed on the optical disc to provide an access optical power signal and an address signal, the optical power signal controlling the

access optical power for the MKB to be greater than the access optical power for other areas, the address signal determining the source of the MKB;

a title key area, which provides a title key signal; and

a main data area, which provides main data that are scrambled original data.

5 9. The optical disc of claim 8, wherein the MKB contains a plurality of data areas that record a common string.

10. The optical disc of claim 8, wherein the MKB is formed by embossing.

11. The optical disc of claim 8, wherein the composition of the readable/writeable material includes Te.